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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,789	03/28/2001	Guruswami M. Sridharan	28437/105	2646

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EXAMINER	
PHU, PHUONG M	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/819,789	SRIDHARAN ET AL.	
	Examiner	Art Unit	
	Phuong Phu	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 August 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 14-19* is/are rejected.

7)☒ Claim(s) *13 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6/19/01 & 8/19/02
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01.

Claim 4 omits steps showing functional/connectional/structural interrelationships of "phase jump detector", "envelop detector" and "minimum detector" to one another, and to other steps recited in claims 1-4 in order to make the claimed "calibration scheme" as a completed connective and operative scheme.

Claims, dependent on above claim, are therefore also rejected.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 2, 7-12 and 14-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Luu et al (6,285,255).

-As per claim 1, see figure 3, and col. 3, line 25, Luu et al discloses a method comprising:

step (PM) of providing a phase modulation signal (see col. 3, lines 39-40),

step (MA) of providing amplitude modulation to the phase modulation signal to generate the modulated signal (see col. 3, lines 39-40), wherein the phase modulation and amplitude modulation are synchronized (see (50, 26) of figure 3 and col. 3, lines 56-59).

-As per claim 2, Luu et al discloses that the phase modulation and amplitude modulation are synchronized in accordance with a operational scheme (see figure 3).

-As per claim 7, Luu et al discloses that the providing amplitude modulation to the phase modulation signal to generate the modulated signal utilizes a gain controlled amplifier (42) (see figure 3).

-As per claim 8, Luu et al discloses that the modulated signal is a radio frequency signal (see (14) of figure 3).

-As per claims 9 and 10, Luu et al discloses that the providing a phase modulation signal utilizes an operational loop (14, PM , MA, 66, 68, 60, 62, 50, 51).

-As per claim 11, see figure 3, and col. 3, line 25, Luu et al discloses a method comprising:

step (PM) of phase or frequency modulating the signal in accordance

with the first data (outputted from (14)); and

step (MA) of amplitude modulating the signal in accordance with the second data (outputted from (12)), wherein the steps of phase or frequency modulating and amplitude modulating are coordinated in time with respect to each other to ensure integrity of the first data and the second data (see (50, 26) of figure 3 and col. 3, lines 56-59).

-As per claim 12, Luu et al discloses a delay circuit (70) is utilized to coordinate in time the phase or frequency modulating step and the amplitude modulating step (see figure 3).

-As per claim 14, see figure 3, and col. 3, line 25, Luu et al discloses a method comprising:

a first data input outputted from (14);

a second data input (outputted from (12);

a frequency or phase modulator circuit (PM) coupled to the first data input, the frequency or phase modulator circuit providing modulation in response to first data at the first data input; and

an amplitude modulator circuit (MA) coupled to the second data input, the amplitude modulator circuit providing modulation in response to second data at the second data input.

-As per claim 15, Luu et al discloses a delay circuit (70), the delay circuit compensating for time delay for the frequency or phase modulator circuit and the amplitude modulator circuit (see col. 4, lines 26-28).

-As per claim 16, Luu et al discloses that the amplitude modulator is an amplifier (42) (see figure 3).

-As per claim 17, Luu et al discloses that the second data controls power provided to the amplifier (see figure 3).

-As per claim 18, Luu et al discloses that the frequency or phase modulator circuit receives an incoming signal and provides a modulated signal to the amplitude modulator circuit (see figure 3).

-As per claim 19, Luu et al discloses the delay circuit (70) is coupled between the second input and the amplitude modulator circuit (see figure 3).

5. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Schell et al (6,751,265).

-As per claim 1, see col. 4, line 29 to col. 5, line 41, Schell et al discloses a method comprising:

step (Phase Drive Processor 10) of providing a phase modulation signal (21A, 22A) (see col. 4, lines 64-67),

step (23, 24, 25) of providing amplitude modulation to the phase modulation signal to generate the modulated signal (see col. 5, lines 1-41), wherein the phase modulation and amplitude modulation are inherently synchronized in time (t) (see (col. 5, lines 10 and 27).

-As per claim 2, Schell et al discloses that the phase modulation and amplitude modulation are inherently synchronized in accordance with a operational scheme (see (col. 5, lines 10 and 27).

-As per claim 3, Schell et al discloses the operational scheme includes providing the modulated signal having a desired characteristic wherein the phase modulation is reversed when the amplitude modulation is minimum (see figure 3F, and col. 6, lines 37-47).

Allowable Subject Matter

6. Claims 13 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (6:30-2:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuong Phu
Primary Examiner
Art Unit 2631

Phuong Phu
09/20/04

PHUONG PHU
PRIMARY EXAMINER